

FOR NATIONAL PHASE SUBMISSION

**CLAIM AMENDMENTS**

WHAT IS CLAIMED IS:

This listing of the claims will replace all prior versions, and listing, of claims in the application:

1. (Currently Amended) ~~Method~~ A method having for ~~recognizing a sensor type comprising~~ the following steps ~~for~~ ~~recognizing a sensor type~~:

- ~~checking~~ a first condition ~~is checked~~ that will have been met if a measuring signal ~~(V\_SENS)~~ of a sensor ~~(1)~~ exceeds a first threshold ~~(V\_SW)~~,

- ~~checking~~ a second condition ~~will be checked~~ if the first has been met, with the second condition having been met if a gradient ~~(GRD\_V\_SENS)~~ of the measuring signal ~~(V\_SENS)~~ is greater in amount than a predefined second threshold ~~(GRD\_V\_SW)~~,

- if the first and second condition have been met, then a sensor ~~(4)~~ having a signal-value-range multiplex output for the measuring signal ~~(V\_SENS)~~ will be recognized,

- and if at least one of the conditions has not been met, then a sensor ~~(2)~~ not having a signal-value-range multiplex output for the measuring signal ~~(V\_SENS)~~ will be recognized.

2. (Currently Amended) ~~Method~~ The method according to claim 1, wherein the first and second condition are in each case checked close in time to a start of operation of the sensor ~~(1)~~.

FOR NATIONAL PHASE SUBMISSION

3. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding claims~~claim 1, wherein the sensor ~~(4)~~ having the signal-value-range multiplex output for the measuring signal ~~(V\_SENS)~~—will be recognized if the first and second condition have been met a predefined number of times, and otherwise the sensor ~~(2)~~—not having a signal-value-range multiplex output for the measuring signal—~~(V\_SENS)~~.

4. (Currently Amended) The method according to claim 1, ~~Method according to one of the preceding claims~~ wherein the following steps are carried out in the case of a recognized sensor ~~(4)~~—having a signal-value-range multiplex output:

- the first and, dependent thereon, the second condition are checked,
- a measurement value of the measuring signal ~~(V\_SENS)~~, which value was registered a predefinable period of time before the first and second condition were met, will be assigned to either a first or a second measured variable, ~~and as a function, moreover, of depending on~~ the sign of the gradient ~~(GRD\_V\_SENS)~~ of the measuring signal ~~(V\_SENS)~~ or ~~as a function of depending on~~ the measurement value's absolute value.

5. (Currently Amended) ~~Method~~ The method according to claim 4, wherein a fault will be recognized if the first and second condition are not met during a predefinable period of time.

FOR NATIONAL PHASE SUBMISSION

6. (NEW) A method for recognizing a sensor type comprising:

- determining whether a measuring signal of a sensor exceeds a first threshold and if so, determining whether a gradient of the measuring signal is greater in amount than a predefined second threshold, and if so, a sensor having a signal-value-range multiplex output for the measuring signal is recognized,

- and if either step of determining fails, then a sensor not having a signal-value-range multiplex output for the measuring signal is recognized.

7. (NEW) The method according to claim 6, wherein the steps of determining are in each case checked close in time to a start of operation of the sensor.

8. (NEW) The method according to claim 6, wherein the sensor having the signal-value-range multiplex output for the measuring signal will be recognized if the steps of determining have been met a predefined number of times, and otherwise the sensor not having a signal-value-range multiplex output for the measuring signal.

9. (NEW) The method according to claim 6, wherein the following steps are carried out in the case of a recognized sensor having a signal-value-range multiplex output:

- repeating the steps of determining,  
- assigning a measurement value of the measuring signal, which value was registered a predefinable period of time before the steps of determining were met, to either a

FOR NATIONAL PHASE SUBMISSION

first or a second measured variable depending on the sign of the gradient of the measuring signal or depending on the measurement value's absolute value.

10. (NEW) The method according to claim 9, wherein a fault will be recognized if the steps of determining are not met during a predefinable period of time.

11. (NEW) An arrangement for recognizing a sensor type comprising:

- means for determining whether a measuring signal of a sensor exceeds a first threshold and
- means for determining whether a gradient of the measuring signal is greater in amount than a predefined second threshold,

wherein a sensor having a signal-value-range multiplex output for the measuring signal is recognized, if both determinations are met, and if either determination fails, then a sensor not having a signal-value-range multiplex output for the measuring signal is recognized.

12. (NEW) The arrangement according to claim 11, wherein the determinations are performed close in time to a start of operation of the sensor.

13. (NEW) The arrangement according to claim 11, wherein the sensor having the signal-value-range multiplex output for the measuring signal will be recognized if the determinations have been met a predefined number of

FOR NATIONAL PHASE SUBMISSION

times, and otherwise the sensor not having a signal-value-range multiplex output for the measuring signal.

14. (NEW) The arrangement according to claim 11, wherein in the case of a recognized sensor having a signal-value-range multiplex output a measurement value of the measuring signal, which value was registered a predefinable period of time before the determinations were met, is assigned to either a first or a second measured variable depending on the sign of the gradient of the measuring signal or depending on the measurement value's absolute value.

15. (NEW) The arrangement according to claim 14, wherein a fault will be recognized if the determinations are not met during a predefinable period of time.